

	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310	1320	1330	1340	1350	1360	1370	1380	1390	14																																													
34878676.m	GTSFRSPVFSFPTDLSLTS	S	SGSSSIFTPEYEDSIRRRGSDIDNP	T	VNDISPPFSPRAPINTR	R	KQLLGCGAFA	P	VYL	C	D	RELAVKQVFNP	D	S	E	T	S	F	KE	Q	L	N	I	V	H	R	D	I	K	G																																			
MAP3K2.h	GNQLTSPVFSFPTDLSLTS	S	SGSSSIFTPEYEDSIRRRGSDIDNP	T	VNDISPPFSPRAPINTR	R	KQLLGCGAFA	P	VYL	C	D	RELAVKQVFNP	D	S	E	T	S	F	KE	Q	L	N	I	V	H	R	D	I	K	G																																			
6754628.m	GTSFRSPVFSFPTDLSLTS	S	SGSSSIFTPEYEDSIRRRGSDIDNP	T	VNDISPPFSPRAPINTR	R	KQLLGCGAFA	P	VYL	C	D	RELAVKQVFNP	D	S	E	T	S	F	KE	Q	L	N	I	V	H	R	D	I	K	G																																			
34873993.m	GNLFT	—	LVPSSRSLSLTN	E	ENMGAAVCYLDPRGRSLADSEN	A	LT	V	TVQERSVP	H	S	SPSAPINTR	R	KQLLGCGAFA	P	VYL	C	D	RELAVKQVFNP	D	S	E	T	S	F	KE	Q	L	N	I	V	H	R	D	I	K	G																												
33468949.m	GNLFT	—	LVPSSRSLSLTN	E	ENMGAAVCYLDPRGRSLADSEN	A	LT	V	TVQERSVP	H	S	SPSAPINTR	R	KQLLGCGAFA	P	VYL	C	D	RELAVKQVFNP	D	S	E	T	S	F	KE	Q	L	N	I	V	H	R	D	I	K	G																												
MAP3K3.h	GNLFT	—	LVPSSRSLSLTN	E	ENMGLAVCYLDPRGRSLADSEN	A	LT	V	TVQERSVP	H	S	SPSAPINTR	R	KQLLGCGAFA	P	VYL	C	D	RELAVKQVFNP	D	S	E	T	S	F	KE	Q	L	N	I	V	H	R	D	I	K	G																												
33859656.m	EKMEAEEEEEALAIAMAMSASQDALP	I	IV	QLVENGED	I	IIIIQDTPPELPGHTKAK	P	YREDAA	M	KG	I	C	GAPSSCV	Q	ACDV	T	GHLMAVKO	T	YVRN	T	SE	O	BEV	BAR	R	E	I	R	M	G	H	N	I	I	H	D	V	K	G																										
16758760.m	EKMEAEEEEEALAIAMAMSASQDALP	I	IV	QLVENGED	I	IIIIQDTPPELPGHTKAK	P	YREDAA	M	KG	I	C	GAPSSCV	Q	ACDV	T	GHLMAVKO	T	YVRN	T	SE	O	BEV	BAR	R	E	I	R	M	G	H	N	I	I	H	D	V	K	G																										
MAP3K1.h	EKMEAEEEEEALAIAMAMSASQDALP	I	IV	QLVENGED	I	IIIIQDTPPELPGHTKAK	P	YREDAA	M	KG	I	C	GAPSSCV	Q	ACDV	T	GHLMAVKO	T	YVRN	T	SE	O	BEV	BAR	R	E	I	R	M	G	H	N	I	I	H	D	V	K	G																										
AK103087.q	DEEANPKIPIRKGDLLGSGCAGFC	P	VNLNDLSDGE	L	LLAVKQVLIGSSNATREKA	G	H	I	EDEV	K	LL	KLKNL	S	HN	I	NR	I	YIG	H	REENS	N	L	I	E	F	V	A	I	R	K	T	O	I	L	B	Y	H	E	N	G	I	I	H	R	D	I	K	G																	
48880007.q	GES	—	PQIRPKRGE	L	LLGSGCAGFC	V	N	LN	D	GELLA	V	K	Q	LSNNA	W	PK	Y	LG	V	REEDT	L	N	I	L	E	F	V	G	I	S	L	E	K	F	A	P	S	V	V	I	T	N	O	L	C	E	H	N	A	I	M	H	R	D	I	K	G								
15221948.p	TVQI	K	PPILWRKGQLIGRGAF	T	V	M	N	LDL	SGE	LLAVKQVLITNSCA	K	E	T	A	I	QB	E	EV	B	V	KLKNL	S	HN	I	NR	I	YIG	H	REDET	N	L	I	E	F	V	A	I	R	K	T	O	I	L	B	Y	H	E	N	G	I	I	H	R	D	I	K	G								
30680907.p	TVDMAPPIS	M	WRKGQLIGRGAF	T	V	M	N	LDL	SGE	LLAVKQVLIAANFA	K	E	T	A	I	QB	E	EV	B	V	KLKNL	S	HN	I	NR	I	YIG	H	REDET	N	L	I	E	F	V	G	I	S	L	E	K	F	A	P	S	V	V	I	T	N	O	L	C	E	H	N	A	I	M	H	R	D	I	K	G
15230612.p	PREEAPS	M	WRKGQLIGCCAGFC	T	V	M	N	LDL	SGE	LLAVKQVLAPSSAK	E	K	T	A	I	QB	E	EV	B	V	KLKNL	S	HN	I	NR	I	YIG	H	REDS	N	L	I	E	F	V	G	I	S	L	E	K	F	A	P	S	V	V	I	T	N	O	L	C	E	H	N	A	I	M	H	R	D	I	K	G
1f3m_Paka	VGDPKKY	I	PF	IGGAGCT	G	V	T	I	M	D	V	T	G	O	E	V	A	I	R	Q	N	L	Q	Q	K	K	E	L	I	T	E	N	F	N	I	V	D	S	Y	L	G	E	L	P	H	S	N	Q	V	H	R	D	I	K	G										

	1410	1420	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530	1540	1550	1560	1570	1580	1590	16																																																			
34878676.m	NILR	DST	CN	I	KL	DGF	AASKRL	T	ICL	SGTGMK	S	VNT	TPWMSPEV	S	GECY	Y	RKAD	I	SVC	CTV	VEM	T	P	AEFE	AMAA	IIFKIA	T	Q	T	TNP	KPL	P	HVS	DY	RD	F	I	KR	IV	VEAR	R	PSA	BELL	RHL	F	V	HCH																								
MAP3K2.h	NILR	DST	CN	I	VKL	DGF	AASKRL	T	ICL	SGTGMK	S	VNT	TPWMSPEV	S	GOCY	Y	RKAD	I	SVC	CTV	VEM	T	P	AEFE	AMAA	IIFKIA	T	Q	T	TNP	KPL	P	HVS	DY	RD	F	I	KR	IV	VEAR	R	PSA	BELL	RHM	F	V	YH																								
6754628.m	NILR	DST	CN	I	VKL	DGF	AASKRL	T	ICL	SGTGMK	S	VNT	TPWMSPEV	S	GECY	Y	RKAD	I	SVC	CTV	VEM	T	P	AEFE	AMAA	IIFKIA	T	Q	T	TNP	KPL	P	HVS	DY	RD	F	I	KR	IV	VEAR	R	PSA	BELL	RHM	F	V	YH																								
34873993.m	NILR	OSA	CN	I	VKL	DGF	AASKRL	T	ICM	SGTGMR	S	VNT	TPWMSPEV	S	GECY	Y	RKAD	I	SLE	CTV	VEM	T	P	AEYF	AMAA	IIFKIA	T	Q	T	TNP	KPL	P	HIS	EHR	DF	F	LRR	IV	VEAR	R	PSA	BELL	RHM	F	V	YH																									
33468949.m	NILR	OSA	CN	I	VKL	DGF	AASKRL	T	ICM	SGTGMR	S	VNT	TPWMSPEV	S	GECY	Y	RKAD	I	SLE	CTV	VEM	T	P	AEYF	AMAA	IIFKIA	T	Q	T	TNP	KPL	P	HIS	EHR	DF	F	LRR	IV	VEAR	R	PSA	BELL	RHM	F	V	YH																									
MAP3K3.h	NILR	OSA	CN	I	VKL	DGF	AASKRL	T	ICM	SGTGMR	S	VNT	TPWMSPEV	S	GECY	Y	RKAD	I	SLE	CTV	VEM	T	P	AEYF	AMAA	IIFKIA	T	Q	T	TNP	KPL	P	HIS	EHR	DF	F	LRR	IV	VEAR	R	PSA	BELL	RHM	F	V	YH																									
33859565.m	NLLID	STC	OR	I	R	A	DGF	QA	AR	A	S	KT	GAGE	F	O	Q	L	I	T	A	F	M	P	E	V	L	R	O	Y	R	S	D	V	C	H	S	G	A	R	Q	L	M	Y																												
16758760.m	NLLID	STC	OR	I	R	A	DGF	QA	AR	A	S	KT	GAGE	F	O	Q	L	I	T	A	F	M	P	E	V	L	R	O	Y	R	S	D	V	C	H	S	G	A	R	Q	L	M	Y																												
MAP3K1.h	NLLID	STC	OR	I	R	A	DGF	QA	AR	A	S	KT	GAGE	F	O	Q	L	I	T	A	F	M	P	E	V	L	R	O	Y	R	S	D	V	C	H	S	G	A	R	Q	L	M	Y																												
AK103870.q	NILV	NDK	C	I	NL	D	G	A	S	K	O	W	E	K	A	T	-	A	T	M	K	C	T	P	W	M	P	E	V	I	V	S	G	H	F	A	D	I	T	G	E	L	D	H	Q	V	N	A	H	K	E	T	-	S	E	L	P	A	D	M	T	G	D	L	I	N	S	N	Y	K	S
48880007.q	NILV	NDK	C	I	NL	D	G	A	S	K	O	W	E	K	A	T	-	A	T	M	K	C	T	P	W	M	P	E	V	I	V	S	G	H	F	A	D	I	G	E	L	D	H	Q	V	N	A	H	K	E	T	-	S	E	L	P	A	D	M	T	G	D	L	I	N	S	N	Y	K	S	
15221948.p	NILV	NDQ	C	I	NL	D	G	A	S	K	O	W	E	K	A	T	-	A	T	M	K	C	T	P	W	M	P	E	V	I	V	S	G	H	F	A	D	I	G	E	L	D	H	Q	V	N	A	H	K	E	T	-	S	E	L	P	A	D	M	T	G	D	L	I	N	S	N	Y	K	S	
30680907.p	NILV	NDK	C	I	NL	D	G	A	S	K	O	W	E	K	A	T	-	A	T	M	K	C	T	P	W	M	P	E	V	I	V	S	G	H	F	A	D	I	G	E	L	D	H	Q	V	N	A	H	K	E	T	-	S	E	L	P	A	D	M	T	G	D	L	I	N	S	N	Y	K	S	
15230612.p	NILV	NDK	C	I	NL	D	G	A	S	K	O	W	E	K	A	T	-	A	T	M	K	C	T	P	W	M	P	E	V	I	V	S	G	H	F	A	D	I	G	E	L	D	H	Q	V	N	A	H	K	E	T	-	S	E	L	P	A	D	M	T	G	D	L	I	N	S	N	Y	K	S	
1f3m_Paka	NILL	EMD	C	V	L	D	G	F	C	A	IT	P	E	S	K	R	Y	M	V	W	M	P	E	V	I	V	S	G	H	F	A	D	I	G	E	L	D	H	Q	V	N	A	H	K	E	T	-	S	E	L	P	A	D	M	T	G	D	L	I	N	S	N	Y	K	S						

The figure displays a phylogenetic tree illustrating the evolutionary history of MAP3K genes across different species. The tree is rooted at the bottom and branches upwards, with time in millions of years ago (Mya) indicated on the x-axis at the top. The y-axis on the left lists the genes and species names. Specific mutations are highlighted in colored boxes along the branches.

Species and Genes:

- 34878676.m
- MAP3K2.h
- 6754628.m
- 34873993.m
- 33468949.m
- MAP3K3.h
- 33859656.m
- 16758760.m
- MAP3K1.h
- AK103087.q
- 48880007.q
- 15221948.p
- 30680907.p
- 15230612.p
- 1f3m_Paka
- 2000
- 34878676.m
- MAP3K2.h
- 6754628.m
- 34873993.m
- 33468949.m
- MAP3K3.h
- 33859656.m
- 16758760.m
- MAP3K1.h
- AK103087.q
- 48880007.q
- 15221948.p
- 30680907.p
- 15230612.p
- 1f3m_Paka
- 2010
- 2020
- 2030
- 2040
- 2050
- 2060